# METHOD AND SYSTEM USING ACOUSTIC EJECTION FOR PREPARING AND ANALYZING A CELLULAR SAMPLE SURFACE

## ABSTRACT OF THE DISCLOSURE

The invention relates to a method and system for acoustically depositing a fluid on a surface of a cell sample. A reservoir containing a fluid is provided, and the cell sample surface is positioned in droplet-receiving relationship to the reservoir. Once the reservoir and the cell sample surface are appropriately positioned, focused acoustic energy is applied to eject a droplet of the fluid from the reservoir. As a result, the droplet is deposited on the sample surface at a designated site. Optionally, the fluid may be an analysis-enhancing fluid that contains a label moiety or a mass- spectrometry matrix material. When an analysis-enhancing fluid is used, the sample is typically subjected to conditions effective to allow the analysis-enhancing fluid to interact with the sample surface so as to render the sample surface suitable for analysis. Then, the sample may be analyzed at the designated site.